

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-5. (Canceled).

6. (Currently Amended) An apparatus for determining a vehicle rollover, comprising:
at least one inertial sensor for detecting a potential vehicle rollover;
a plurality of tire sensors; and
an arrangement that uses signals from the plurality of tire sensors to determine a plausibility of the detection of the potential vehicle rollover

wherein the plausibility determination includes:

measuring a tire pressure for each tire on the vehicle;
calculating a first value by multiplying the pressure measurements for each tire on a first side of the vehicle by each other;
calculating a second value by multiplying the pressure measurements for each tire on a second side of the vehicle by each other;
calculating a ratio of the first value to the second value; and
determining the plausibility based at least in part on the ratio.

7. (Previously Presented) The apparatus of claim 6, wherein the plurality of tire sensors are configured as pressure sensors.

8. (Currently Amended) The apparatus of claim [[6]] 11, wherein the plurality of tire sensors are configured as temperature sensors.

9. (Previously Presented) The apparatus of claim 6, wherein the plurality of tire sensors are configured as rotational speed sensors.

10. (Canceled).

11. (Previously Presented) An apparatus for determining a vehicle rollover, comprising:

an angular rate sensor to measure an angular rate, wherein a potential vehicle rollover is determined at least in part by the measured angular rate;

a vertical acceleration sensor for measuring a vehicle acceleration in a vertical direction;

a horizontal acceleration sensor for measuring an acceleration in a transverse direction; and

a plurality of tire sensors;

wherein:

a plausibility of the detection of the potential vehicle rollover is determined at least in part based on the vertical acceleration, the horizontal acceleration, and signals from the plurality of tire sensors;

the apparatus is configured to output an indication of a vehicle rollover for performance of a safety measure, the output of the indication being conditional upon that (a) the detection of the potential vehicle rollover is determined to be plausible by the plausibility determination, (b) an integrated angular rate, which is obtained by integrating the measured angular rate, is over a first critical number, and (c) the angular rate is over a second critical number;

the second critical number is either an energy threshold or a torque threshold; and

the second critical number is based on the integrated angular rate.

12. (Currently Amended) [[The]] A method of ~~claim 10~~ determining a vehicle rollover, comprising:

detecting a potential vehicle rollover using signals from at least one inertial sensor;
and

determining a plausibility of the detection of the potential vehicle rollover using signals from a plurality of tire sensors;

wherein the plausibility determination includes:

measuring a tire pressure for each tire on the vehicle;

calculating a first value by multiplying the pressure measurements for each tire on a first side of the vehicle by each other;

calculating a second value by multiplying the pressure measurements for each tire on a second side of the vehicle by each other;

calculating a ratio of the first value to the second value; and

determining the plausibility based at least in part on the ratio.

13. (Previously Presented) The method of claim 12, wherein the plausibility determination is based at least in part on an extent to which the ratio deviates from a value of 1.

14. (New) The apparatus of claim 6, wherein the plausibility determination is based at least in part on an extent to which the ratio deviates from a value of 1.

15. (New) The apparatus of claim 11, wherein the plurality of tire sensors are configured as pressure sensors.

16. (New) The apparatus of claim 11, wherein the plurality of tire sensors are configured as rotational speed sensors.

17. (New) A method of determining a vehicle rollover, comprising:

measuring an angular rate;

detecting a potential vehicle rollover at least in part by the measured angular rate;

measuring a vehicle acceleration in a vertical direction;

measuring an acceleration in a transverse direction;

determining a plausibility of the detection of the potential vehicle rollover at least in part based on the vertical acceleration, the horizontal acceleration, and signals from a plurality of tire sensors;

outputting an indication of a vehicle rollover for performance of a safety measure, the output of the indication being conditional upon that (a) the detection of the potential vehicle rollover is determined to be plausible by the plausibility determination, (b) an integrated angular rate, which is obtained by integrating the measured angular rate, is over a first critical number, and (c) the angular rate is over a second critical number, wherein the second critical number is either an energy threshold or a torque threshold and is based on the integrated angular rate.